REMARKS

Claims 1-12 are pending in the application. In view of the following remarks, Applicant respectfully requests allowance of the pending claims.

Allowed Claims 2-6 and 8-12

Applicant thanks the Examiner for the allowance of claims 2-6 and 8-12. As suggested by the Examiner, claims 2 and 8 have been rewritten in independent form to include the limitations of original claims 1 and 7, respectively.

Rejection of Claims 1 and 7 Under 35 U.S.C. § 102

Claims 1 and 7 have been rejected under 35 U.S.C. § 102(b) based on Great Britain Patent No. 2,331,869 ("Leijon"). For the following reasons, Applicant respectfully submits that claims 1 and 7 are now in condition for allowance.

Claims 1 and 7, as amended, recite a "compact voltage grading means" and a "low impedance shunt," respectively, that are positioned and configured for "contacting at least one of the plurality of vent members and at least one of the plurality of metal strands." This is a significant feature of claims 1 and 7. As illustrated in Applicant's Figure 9, in conventional rotating electrical machines, high-voltage tends to build up between the vent members and the metal strands in the stator coils of the electrical machine. If this voltage is permitted to surpass the maximum allowable voltage level for that electrical machine, the insulation in the electrical machine's stator coils may be damaged severely. Applicant's invention solves this potential problem with a "compact voltage grading means" or a "low impedance shunt" that creates an electrical path between the vent members and the metal strands to grade voltage between those two elements to prevent damage caused by overvoltage conditions.

Neither Leijon nor any other prior art reference of record teaches or suggests a "compact voltage grading means" or a "low impedance shunt" that is positioned and configured for "contacting . . .vent members and . . . metal strands." Thus, to the extent that Leijon and the other prior art references of record employ vent members and metal strands, they - like the conventional rotating electrical machines discussed above – are susceptible to damage from overvoltage conditions. Based on at least this patentable difference between the invention recited in claims 1 and 7 and the prior art of record, Applicant respectfully requests favorable reconsideration of the rejection of claims 1 and 7.

CONCLUSION

For the foregoing reasons, Applicant respectfully submits that the application is now in condition for allowance. Should the Examiner have any questions concerning this paper or application, or if any issues remain, the Examiner is respectfully requested to contact Applicant's undersigned attorney to resolve such issue or question. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

Dated: 10/15/02

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

1. (Amended) A power generation system comprising:

a rotor; and

a stator positioned adjacent the rotor, the stator including a plurality of high voltage stator coils, each of the plurality of stator coils including a plurality of metal coil strands, a plurality of metal vent members positioned adjacent to the plurality of coil strands, and compact voltage grading means contacting [each] at least one of the plurality of vent members and at least one of the plurality of metal strands for grading voltage between the plurality of vent members and the plurality of metal coil strands to thereby prevent an overvoltage condition.

2. (Amended) A power generation system comprising:

a rotor; and

a stator positioned adjacent the rotor, the stator including a plurality of high voltage stator coils, each of the plurality of stator coils including a plurality of metal coil strands, a plurality of metal vent members positioned adjacent to the plurality of coil strands, and compact voltage grading means contacting each of the plurality of vent members for grading voltage between the plurality of vent members and the plurality of metal coil strands to thereby prevent an overvoltage condition

[A system as defined in Claim 1], wherein the compact voltage grading means includes at least a first conductive strip member contacting a conductive portion of each of the plurality of vent members, a voltage grading layer of material positioned to contact the first conductive strip

member, and at least a second conductive strip member positioned to contact the plurality of metal coil strands and the voltage grading layer to thereby provide an electrical flow path between the metal vent members and the metal coil strands.

7. (Amended) A high voltage stator coil for a stator of a power generation system, the stator comprising:

a plurality of metal strands;

a plurality of vent members positioned adjacent the plurality of metal strands; and

a low impedance shunt contacting [each] at least one of the plurality of vent members and at least one of the plurality of metal strands for grading voltage between the vent member[s] and the metal strands to thereby prevent an overvoltage condition

8. (Twice Amended) A high voltage stator coil for a stator of a power generation system, the stator comprising:

a plurality of metal strands;

a plurality of vent members positioned adjacent the plurality of metal strands; and

a low impedance shunt contacting each of the plurality of vent members and the plurality of metal strands for grading voltage between the vent members and the metal strands to thereby prevent an overvoltage condition

[A stator coil as defined in Claim 7], wherein the low impedance shunt includes at least a first conductive strip member contacting a conductive portion of each of the plurality of vent members, a voltage grading layer of material positioned to contact the first conductive strip member, and at least a second conductive strip member positioned to contact the plurality of

metal strands and the voltage grading layer to thereby provide an electrical flow path between the vent members and the metal strands.